1098-115 **N-T Pro-BNP Is a Powerful Predictor of Outcome in Patients With Stable Angina: A Substudy of the IONA Trial**

Stephen D. Robb, Theresa A. McDonagh, Michele Robertson, Ian Ford, Kim M. Fox, W. Stewart Hillis, John J. Morton, Henry J. Dargie, University of Glasgow, Glasgow, United Kingdom, Imperial College, London, United Kingdom

Background: Levels of B-type natriuretic peptide (BNP) have been shown to predict outcome in heart failure, asymptomatic left ventricular systolic dysfunction and acute coronary syndromes. The prognostic value of BNP and the related peptide N-terminal proBNP have never been reported in stable angina. We report the relationship between NT-proBNP and outcome in participants in the IONA study.
Methods: The IONA (Impact of Nicorandil in Angina) study was a randomised, placebo controlled trial of nicorandil in stable angina, involving 5126 patients. It showed that the addition of nicorandil 20mg twice daily to standard antianginal therapy reduced major adverse coronary events. Plasma levels of NT-proBNP were measured at randomisation in a subset of 1427 of the participants in this trial. The demographics in this peptide subgroup were similar to the whole study group. A Cox model was used, splitting the group into two halves above and below the median value for NT-proBNP, to relate NT-proBNP levels to the main end points of the study.
Results: Median levels of NT-proBNP were significantly higher in patients with each of the study endpoints: acute coronary syndrome – 531.5 v 188.0 pg/ml; coronary heart disease death or non fatal myocardial infarction (M.I.) - 728.0 v 190.5 pg/ml, and all cause mortality - 706.5 v 191.0 pg/ml (all P<0.0001). Baseline levels of NT-proBNP were shown to be predictive of each of the endpoints: acute coronary syndromes - HR 1.69 (1.31 – 2.18); coronary heart disease death or non fatal M.I. - HR 3.86 (2.29 – 6.29) and all cause mortality - HR 3.26 (2.00 – 5.33).
Conclusion: In patients with stable angina enrolled into the IONA trial circulating levels of NT-proBNP were a very powerful outcome indicator and could prove useful in assigning prognosis in patients with stable angina.

1098-116 **Serum Amyloid A Low-Density Lipoprotein Complex: A Novel Prognostic Marker in Stable Coronary Heart Disease**

Makoto Sahara, Ken Ogasawara, Tadanori Aizawa, Yoichirou Wada, Tatsuhiko Kodama, Shinichi Mashiba, Kazuo Uchida, The Cardiovascular Institute, Tokyo, Japan, Research Center for Advanced Science and Technology, The University of Tokyo, Tokyo, Japan

Purpose and methods: Although some reports have indicated that acute phase proteins such as C-reactive protein (CRP) and serum amyloid A (SAA) can predict the prognosis in patients with acute coronary syndrome, the value of these markers in stable coronary heart disease is still unclear. In this prospective cohort study, we evaluated SAA-LDL complex as a new marker for prediction of prognosis in addition to the ordinary markers including CRP, SAA and use of HMG-CoA reductase inhibitors or aspirin in consecutive 140 patients with stable coronary heart disease who had at least 1 coronary artery stenosis at the diagnostic coronary angiography (CAG). All the patients were followed up for 18 months after CAG. Serum levels of SAA-LDL complex were measured by sandwich enzyme-linked immunosorbant assay. **Results:** End-point events occurred in 21 patients (2 deaths from myocardial infarction, 2 cerebral infarctions and 17 coronary revascularization procedures). Age, diabetes mellitus, triglyceride and SAA-LDL complex were selected as independent predictors by a multiple stepwise regression test. The result of a logistic regression test was as follows.

	Odds ratio	Confidence interval
Age (year)	1.14	1.05-1.25
Diabetes mellitus	3.50	1.08-11.40
Triglyceride (10mg/dl)	1.12	1.01-1.23
SAA-LDL complex (10μg/ml)	2.32	1.05-4.70

Conclusions: Serum level of SAA-LDL complex can be a new marker for prediction of prognosis in patients with stable coronary heart disease. It is also suggested that SAA combined with LDL may play an important role in the process of atherosclerosis.

ORAL CONTRIBUTIONS

822 Acute Coronary Syndromes: Prognosis

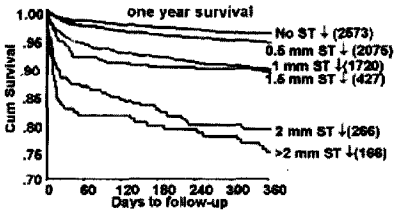
Monday, March 31, 2003, 2:00 p.m.-3:30 p.m.
McCormick Place, Room S106

2:00 p.m.

822-1 **Does the Extent of ST-Segment Depression Predict Short- and Long-Term Mortality in Patients With Non-ST Segment Elevation Acute Coronary Syndromes? Insights From the GUSTO IV**

Yuling Fu, Michael Lauer, Wei-Ching Chang, Robert M. Califf, Maarten L. Simoons, Lars Wallentin, Eric J. Topol, Paul W. Armstrong, for the GUSTO IV Investigators, University of Alberta, Edmonton, AB, Canada

ST depression (ST dep) >0.5 mm is widely used for risk stratification. However, the extent of ST dep as a predictor of short and long term mortality in NSTEMI acute coronary syndromes (ACS) is not well studied. Methods: 7741 of 7780 patients (pts) with ACS in GUSTO IV had baseline ECGs read in a core lab blinded to outcomes. ST dep was assessed in 0.5 mm increments. Results: 300 pts (3.9%) died at 30 days and 644 (8.3%) by 1 year. Pts with ECG confounders (514) had 30-day and 1-year mortality of 8.9% and 18.3%, respectively. There was an increased risk of death with each 0.5 mm increment in ST dep (Figure). After adjusting for baseline characteristics, troponin (TnT), and C reactive protein (CRP), the extent of ST dep was the most powerful predictor of 30-day death and the second most powerful at 1 year after age. ST quantitative analysis vs conventional cut point of >= 0.5 mm improved the ECG predictive power for 30-day and 1-year mortality to 20.8% and 10.2% vs 7.3% and 4.0%, respectively. The relative contribution of baseline biomarkers to mortality were: (a) 4.4% for TnT at 30days, which was 22.7% of the predictive power of ST dep; and (b) 3.6% and 2.1%, respectively, for TnT and CRP at 1 year, which were 36.7% and 21.7% of the predictive power of quantitative ST dep. Conclusion: Quantitative ST analysis provides major incremental prognostic insight over dichotomous assessment of >=0.5mm. Despite enthusiasm for new biomarkers, it is superior to TnT at 30 days and a more significant mortality predictor than either TnT or CRP at 1-year.



2:15 p.m.

822-2 **A High-Grade Stenosis After Successful Fibrinolysis Does Not Predict Death and Reinfarction: 10-Year Follow-Up of the APRICOT-1 Trial**

Marc A. Brouwer, Peter C. Kievit, Gerrit Veen, Freek W. A. Verheugt, Free University Medical Center, Amsterdam, The Netherlands, Heartcenter, University Medical Center, Nijmegen, The Netherlands

Background: In lack of randomized trials in the current era, the potential benefit of a routine invasive strategy on outcome following successful fibrinolytic therapy is uncertain. This study addresses the impact of a high-grade stenosis on both short-and long-term clinical outcome in the setting of a conservative revascularization strategy.
Methods: In the APRICOT-1 trial (1987-1991) 248 patients had fibrinolysis for suspected acute myocardial infarction with a patent infarct artery at 24-hour angiography, and follow-up angiography at 3 months. QCA-analysis was possible in 240 patients, a > 60% considered significant. Revascularization rate at 3 months was 11%.
Results: Death and/or reinfarction rates at 3 months were 8% for those with a significant stenosis and 10% for those with a < 60% stenosis at baseline (p=ns). Long-term infarct-free survival did not differ either (figure).
Conclusion: These observations challenge the hypothesis that patients with a high-